OZONE 101

Pocket Guide to Ozone for Residential Pools & Spas

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DEL OZONE™

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Who Are We?

- DEL Ozone is an ozone manufacturer located in San Luis Obispo, California.
- We were founded in 1975 as a manufacturer of swimming pool products.
- We were the first U.S. company to explore ozone for pools and spas. That was back in 1981.
- All we do…is ozone.
- We are a full staff of professionals who are experts in ozone technology, physical science, electrical applications, research, design, engineering, marketing and manufacturing.
- Although most people know us for our pool and spa applications, we also provide ozone for fountains, fish ponds, industrial waste water, portable purification systems, aquatic life support systems, zoos and aquariums, winery systems, and multiple agricultural applications.
- Our key goal is to market environmentally safe and sound products of superior quality.
- DEL continues to set industry standards.
- DEL Ozone is the LEADER in ozone purification technology!
- **Please visit our website at www.delozone.com for product specifications, a library with manuals & brochures, members sections, and a Q&A forum.**

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A Few Good Names

In naming a few of our satisfied customers, we thought you may recognize the following:

- Walt Disney World - Lake Buena Vista, FL
- Atlantis Paradise Island - Bahamas
- Belagio Casino, Las Vegas, NV
- Meridian Vineyards, CA
- Vancouver Aquarium - Vancouver, B.C.
- San Diego Zoo - San Diego, CA
- Underwater World at Mall of America - Minneapolis, MN
- Underwater World at Pier 39 - San Francisco, CA
- Brookfield Zoo - Brookfield, IL
- Bronco Winery - Napa, CA
- Mandalay Bay Casino - Las Vegas, NV
- New York Zoological Society - Brooklyn, NY
- Seattle Aquarium - Seattle, WA
- Glen Ellen Winery, Sonoma, CA
- Mall of America, Bloomington, MN
- Biscayne Aquaculture Research - Miami, FL
- Aquarium for Wildlife Conservation - New York, NY
- Wildhorse Winery, CA
- Jurassic Park the Ride - Studio City, CA
- Ernest and Julio Gallo Winery - Modesto, CA
- Sparkletts/Alhambra Drinking Water - Pasadena, CA
- Foxwoods Casino, CT

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What Is Ozone?

- Ozone is “active oxygen”, nature’s special element. Each ozone molecule consists of three oxygen atoms.
- **Ozone is a natural purifier.**
- Ozone has a clean, fresh scent often noticed after a rainstorm.
- It occurs naturally in the Earth’s upper atmosphere from the sun’s UV rays, and in the lower atmosphere during a thunder/lightning storm.
- Life safely exists because of the protection of the ozone layer.
- There is a small amount of ozone in the air we breathe.

This is NOT New Technology!

- Ozone was Discovered by Schönbein in the 1840’s when he discovered a unique odor during electrolysis and electrical sparking experiments. He recognized the odor as the same odor observed after a lightning flash. He named the substance “ozone” after the Greek word “ozein.”
- Ozone has been used since the turn of the century to purify drinking and municipal waste water.
- In 1906, the city Nice, located in France, built the first water purification plant to utilize ozone.
- Los Angeles, California, has one of the largest municipal ozone water treatment plants in the world.
- Ozone has been used for 65+ years to purify pool and spa water - worldwide.
- In the 1940’s ozone was used to purify the indoor pool water at the U.S. Naval Academy in Annapolis.
- Since 1984, all Olympic Games Competition Pools are purified with ozone.

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- **Bottled water has been purified with ozone since 1982.**
- **Ozone is used in residential pools and spas to greatly reduce chlorine and bromine usage. Additionally, ozone creates an aquatic environment that is easier to maintain than when just using traditional chemicals.**

Ozone Is Healthy and Safe

Ozone Is Healthy:

- Ozone leaves no chemical by-products in water - it converts into life-giving oxygen.
- Ozone leaves no chemical taste or smell.
- Ozone will not burn eyes or leave them red & irritated.
- Ozone will not irritate or dry out skin, nose, or ears.
- Ozone will not leave a chemical film on material or skin.
- Ozone will not discolor or damage hair or clothing.
- Ozone rids water and air of disease-causing microorganisms.
- Ozone is NOT a carcinogen.

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Ozone Is Safe for the Environment & Equipment:

- Ozone is safe for the environment and pool/spa equipment.
- Ozone cannot explode.
- Ozone is not a fire hazard in the doses required for excellent water purification.
- Ozone, when used properly, does not produce harmful fumes.
- Pool & spa manufacturers recommend the use of ozone because it is so gentle on their equipment.

Ozone is Convenient for Pools and Spas

- Ozone does not have to be purchased or stored. Ozone is generated on-site and is introduced into the water automatically.

- Ozone does not affect the pH balance of water, thus minimizing pH adjustments.

- Ozone helps reduce total dissolved solids in water.

- Ozone eliminates much of the routine maintenance because it does such an effective job of keeping the water clean. It does so by:

  - Oxidizing oils and other organic compounds which make the "ring" around the spa or pool have a harder time adhering to.

  - It actually removes particles from the water (moving it closer to its natural state) without having to add more chemicals.

  - **MAKES MORE FREE CHLORINE AVAILABLE TO SANITIZE.**

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Does Ozone Work?

Ozone is a Powerful Oxidizer

- Ozone is the most powerful oxidizer and disinfectant that can safely be used in pools and spas.
- Ozone is the alternative water purifier to traditional chemicals such as chlorine and bromine: ozone kills bacteria 3,000+ times faster!
- **Chlorine produces many by-products, including chloramine, that are toxins in the water that smell bad and cause irritation to humans. Ozone eliminates chloramines.**
- Ozone is more effective than chlorine without harmful by-products.
- It kills all known: Bacteria, Viruses, Cysts, Yeasts, Molds, Mildew
- It helps oxidize hydrogen sulfides, iron, manganese, and most chlorinated hydrocarbons found in the water.
- Dissolves in water 13 times faster than oxygen.

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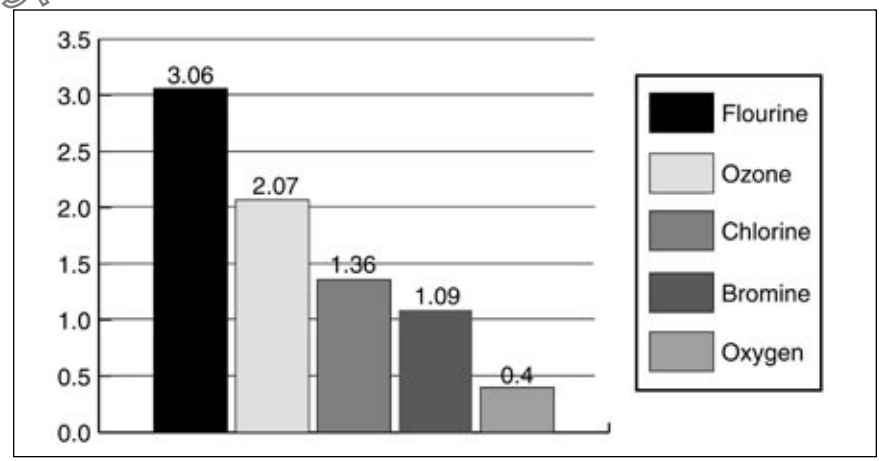
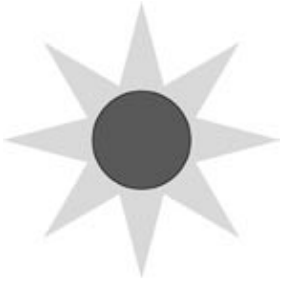
Oxidizing Potential of Various Reagents

Ozone	2.07	Hypobromous Acid	1.33
Hydrogen Peroxide	1.77	Oxygen (ozone by-product)	1.23
Hypochlorous Acid	1.49	Bromine	1.09
Chlorine Gas	1.36	Iodine	0.54



Ozone Production Technologies

Ultraviolet (UV) Light - light energy



This is how ozone is produced in the upper atmosphere via the sun's UV rays.

UV Ozone Generators:

- Utilize a UV lamp to produce ozone
- Typically for low concentration/low output applications

Corona Discharge (CD) - electrical energy

This is how ozone is produced in the lower atmosphere via lightning.

CD Ozone Generators:

- Utilize a CD electrode to produce ozone
- Typically for high concentration/ high output applications

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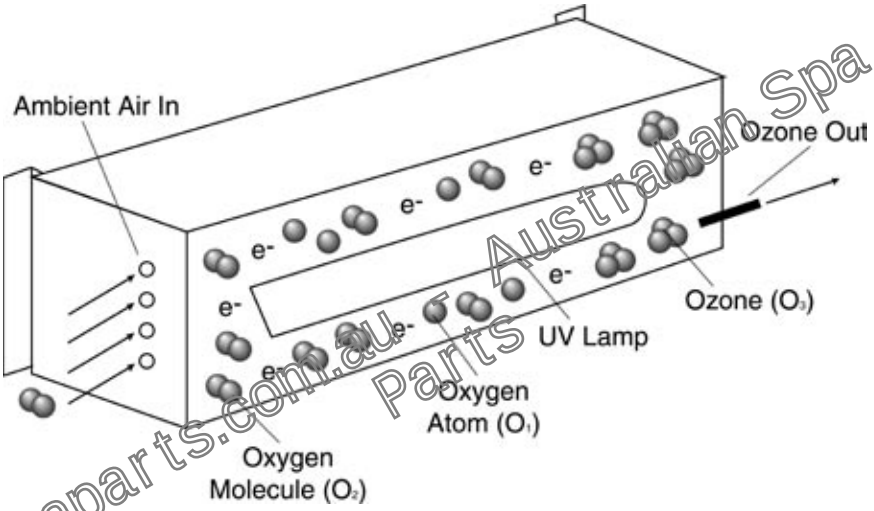
Ultraviolet Ozone Production

"Energy Field of Light"
Low Intensity Ozone Production

A special UV lamp gives off a specific frequency (185nm) instantly converting oxygen (O_2) molecules into ozone (O_3-active oxygen molecules) inside the generator.



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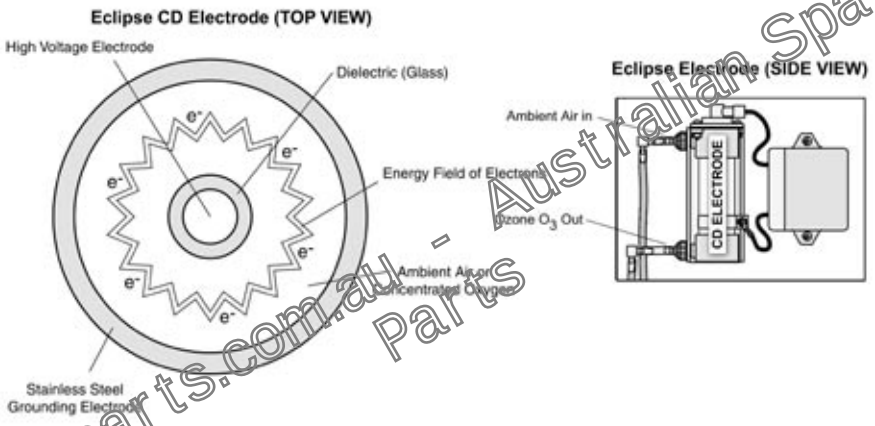
All "**DELZONE**" ozone generators for residential pools and spas use UV lamps and ballasts to generate ozone. **Lamps should be replaced following 9,000 hours of use (or approximately every 3 years for seasonal use).**

Note: Now that Corona Discharge ozone generators are available, DEL Ozone no longer promotes the use of UV technology.

Corona Discharge Ozone Production

"Energy Field of Electrons"
High Intensity Ozone Production

In the case of our Eclipse line of CD ozone generators, ambient air (oxygen) passes through an air gap between a high voltage electrode and a stainless steel grounding electrode. The "energy field of electrons" created by the high voltage electrode instantly converts oxygen (O_2) molecules into ozone (O_3).



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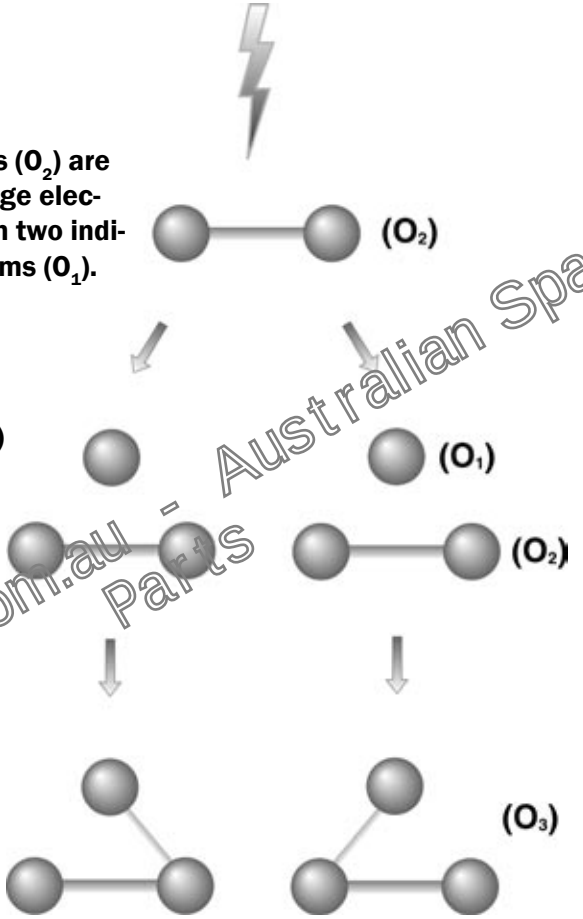
DEL Ozone manufactures both "traditional" corona discharge ozone generators for commercial applications and a new technology which consists of mini corona discharge "electrodes". All "**ECLIPSE**" ozone generators for residential pools and spas use these new high voltage, high frequency mini corona discharge electrodes and power supplies to generate ozone. **ELECTRODES AND POWER SUPPLIES SHOULD BE REPLACED FOLLOWING 15,000 HOURS OF USE.**

How Ozone is Made

(Corona Discharge Example)


Oxygen molecules (O_2) are split by high voltage electrodes resulting in two individual oxygen atoms (O_1).
(O_2)
Oxygen atoms (O_1) unite with other oxygen molecules (O_2) to produce Ozone (O_3).
(O_1)
(O_2)
Hence:
(O_1) + (O_2) = (O_3)
(O_3)

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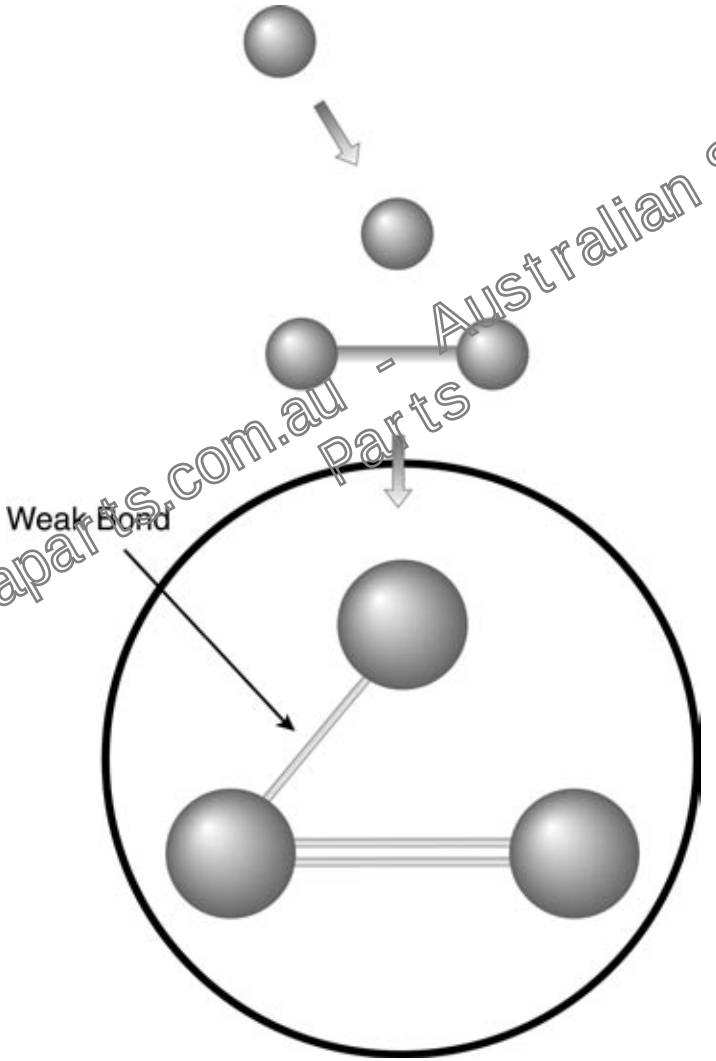
How Ozone Works

- Ozone is an unstable compound generated by the exposure of oxygen molecules to a high energy electrical discharge.

- The weak bond holding ozone's third oxygen atom is what causes the molecule to be unstable and thus, very effective.



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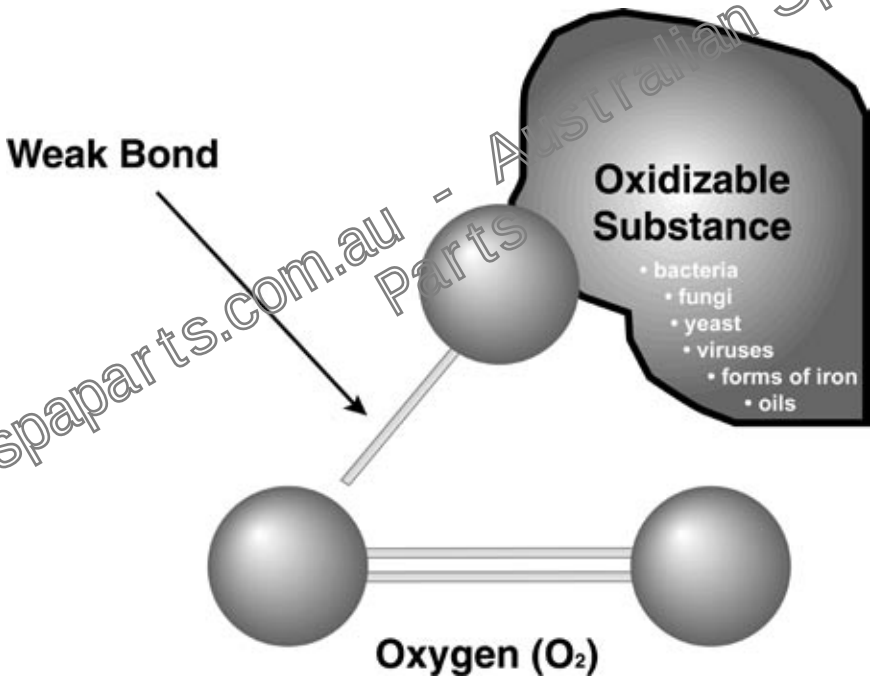
How Ozone Works (continued)

- An oxidation reaction occurs upon any collision between an ozone molecule and a molecule of an oxidizable substance (i.e. bacteria, fungi (mold & yeast), viruses, forms of iron & manganese…)

- The weak bond splits off leaving oxygen as a by-product.

- During an oxidation reaction, organic molecules are changed and dissolved metals are made no longer soluble.



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UV versus CD

Ozone Technology Comparison

- Most UV generators produce ozone concentrations that top out at 550 ppm. The CD technology used in the ECLIPSE line of residential pool & spa ozonators produces up to 2,500 ppm (over 4 times more ozone than UV)

    - Higher ozone concentrations promote increased dissolution of ozone into the water.

    - Higher ozone concentrations provide cleaner and clearer water while further reducing chlorine use.

- CD generates very low heat because there is no lamp or ballast inside the unit.

- CD uses much less energy than UV

    - A CD ozonator that produces ozone at a concentration of 450 ppm uses only 10 Watts of power, a cost of approximately $.03 per day or $11.00 per year.

    - A UV ozonator that produces ozone at a concentration of only 298 ppm uses almost 100 Watts of power, a cost of approximately $.30 per day or $110.00 per year.

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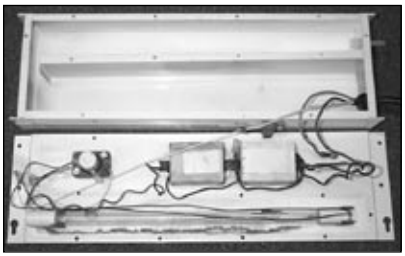

Old UV Technology - early 1990s

Current DEL CD Technology

ECLIPSE Products

DEL Ozone offers a full product line of Eclipse Corona Discharge ozonators for use in spas or pools. Our newest spa unit, the Eclipse Platinum, offers up to 65% more ozone output than our Spa Eclipse. The Total Eclipse is now being offered in a 4 cell configuration for a 100% increase in ozone output. Take a look below at our exciting product line.

For Pools

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For Spas

Used for removing ozone off-gas on pools and spas

ECLIPSE Ozone Generator

Installation & Maintenance

The most common installation method allows ozone to be dissolved into pool water through an adjustable injector manifold assembly that is installed into the plumbing system following all other equipment.

DEL injector manifolds contain a Mazzei injector and a ball valve. The injector manifold is installed as the last piece of equipment before the return to the pool/spa (shown below). The ball valve is used to redirect the water flow through the injector. The injector is tapered to constrict the water flow, thus creating a vacuum that pulls ozone gas from the ozonator into the injector via ozone supply tubing. The vigorous interaction between the incoming water and ozone gas creates very fine ozone bubbles which dissolve into the water. DEL has a variety of injector assemblies available. The IU-216 is for use with in-floor cleaning systems - this injector is not standard and, therefore, must be specified when ordering. A check valve should be installed in the ozone supply tubing between the ozone generator and injector manifold to prevent water backup into the generator.

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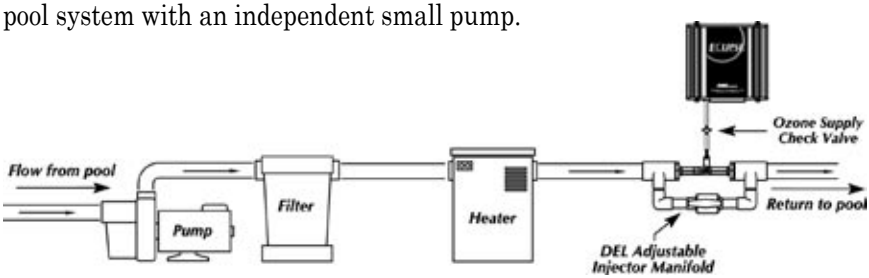
If the system is professionally hard-wired into the time clock (this is the most common method), the ozone generator will only operate during this time. If the system is simply plugged in with the 3-prong plug supplied with most Eclipse models, the generator will constantly produce ozone, but it will not be introduced into the water until the other equipment runs, thus creating a vacuum to pull the ozone out of the generator (not recommended).

The ozone, in most applications, will only run during normal operation of the filtration equipment. The longer your filtration equipment runs, the cleaner the pool will be. We do not recommend running the equipment less than 8 hours. Again, the longer the better. If possible, install an injector-driven pool system with an independent small pump.

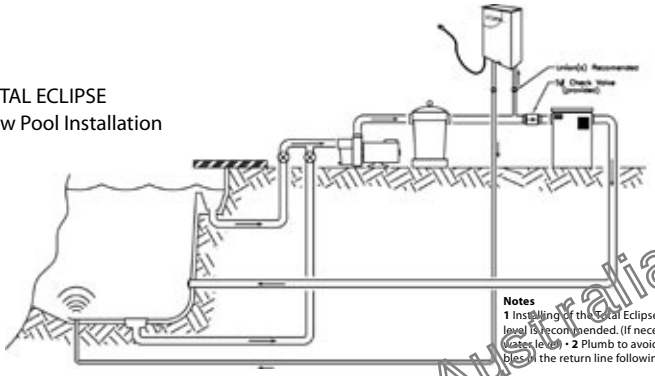


TOTAL ECLIPSE Ozone Generator

Installation & Maintenance

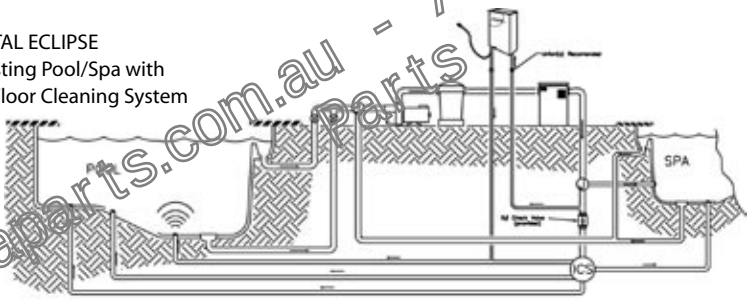
The TOTAL ECLIPSE has a built-in injector and recirculation pump for 24-hour independent operation. The TOTAL ECLIPSE can be installed at time of construction or on existing pools as shown in the diagrams below.

TOTAL ECLIPSE
New Pool Installation



Notes
1 Installing of the Total Eclipse no less than 12" above water level is recommended. (If necessary, install max 36" below water level) • **2** Plumb to avoid the collection of the air bubbles in the return line following the ozone connection.

TOTAL ECLIPSE
Existing Pool/Spa with
In-Floor Cleaning System



Notes
1 Plumb to avoid the collection of the air bubbles in the return line following the ozone connection • **2** "ICS" stands for Infloor Cleaning System **3** Ozone return line has to connect with one of the pool return lines of the ICS • **4** Total Eclipse will shut down when in "Spa" mode. It will restart when returned to "Pool" mode • **5** "J" stands for Jandy valve • **6** Installing of the Total Eclipse no less than 12" above water level is recommended. (If necessary, install max 36" below water level)

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A few important tips:

1. Keep the dedicated return line as straight as possible to prevent ozone bubbles from forming a large bubble that will 'burp' into the pool and, therefore, be less appealing to the eye.

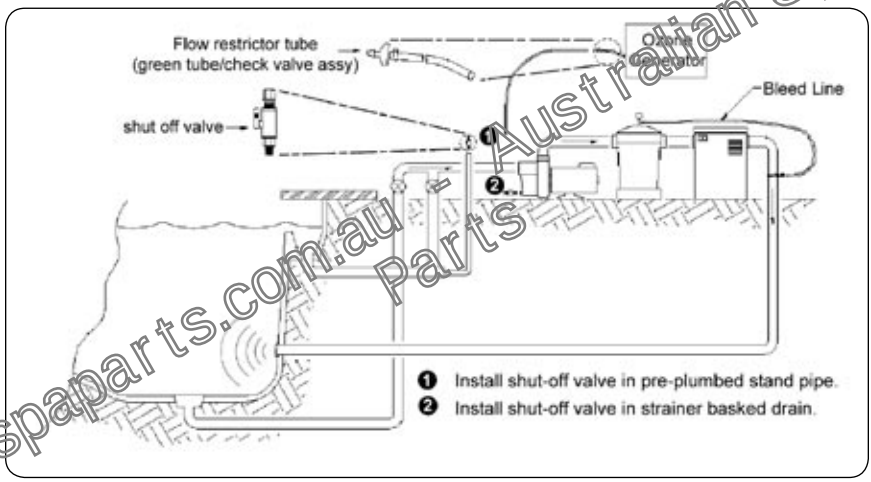
2. If possible, install the return line on a slight upward slant so that the ozone bubbles flow freely to the surface of the water.

3. Additionally, for wall entry, use a small fitting, such as an eyeball fitting of reducer, at the point of entry to create finer bubbles that look more like champagne bubbles. For floor entries, we suggest a "salt and pepper style fitting which will help break the bubbles up.

ECLIPSE Suction-side Installation

If your pool has copper piping, solar panels, or extreme pressure loss, use the suction-side introduction method. With this method, no injector manifold is required. The vacuum created by the pump pulls the ozone in from the ozone generator. Any undissolved ozone is vented off by the filter. Pool professionals appreciate this method because the ozone helps degrease the filter

The ECLIPSE suction-side installation diagram is shown below.



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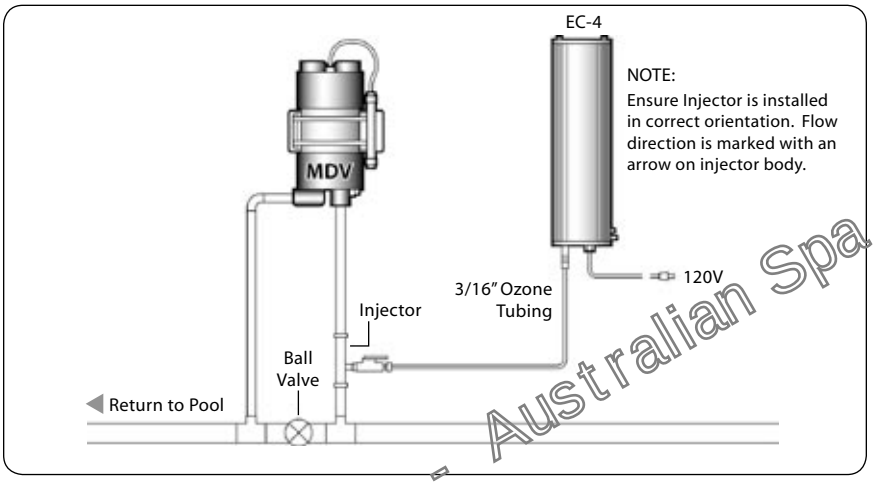
ECLIPSE Pump Suction Kit Installation

ECLIPSE Suction-side and TOTAL ECLIPSE MDV Installation (continued)



Typical Installation—Eclipse 1, 2, or 4 with MDV

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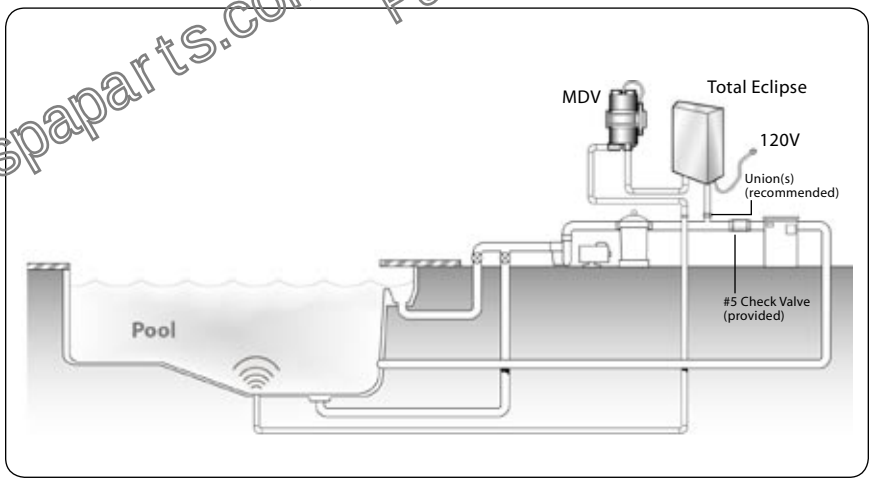

MDV Installation—Existing Pool with Cleaning System (no spa)

Spa Ozone Generator

Installation & Maintenance

There are many ways to install ozone on a spa. Please log onto our Website www.delozone.com to download an Eclipse spa ozone manual from our library (also includes ZO-301/302 and CDS-16 spa ozone generation units). These days, spa manufacturers have "ozone ready" spas. This means that there is a dedicated port for the ozone to enter, thus bringing ozone through an air line and through the jets (either the main jets or a dedicated ozone outlet).

Some manufacturers use an injector which is the most effective way to dissolve the ozone into the water. The injector creates very small bubbles and mixes them violently with the water stream. This action increases the air/water interface area allowing ozone to dissolve very thoroughly. Once dissolved, ozone goes to work oxidizing organics and contaminants in the water stream. Another effective way to introduce ozone on a spa is with a longer return line (the line(s) leading from the filtration equipment back to the tub). This will allow ozone to have more time to oxidize organic matter before it is introduced to the main tub. Again, there are many installations for ozone on a spa. Please refer to our installation manuals.

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The ozone, in many applications, will only run during normal operation of the filtration equipment. The longer your filtration equipment runs, the cleaner the spa will be. We do not recommend running the equipment less than 6 hours. Again, the longer, the better.

Cloudy Water in a Pool

Don't Worry; In This Case, It's Good

What Causes Cloudy Water?

Cloudy water can be caused when an ozone generator is first installed because the ozone oxidizes the organics in the water causing them to form a chain which then becomes visible to th eye and gives the water the cloudy appearance. Another way water can appear cloudy is with an imbalance in the water. Always check to make sure the pH, alkalinity and calcium hardness are balanced.

Customers are concerned when, within a day or two of installing their ozone generator, their pool or spa water becomes cloudy.

The common reaction is to "shock" the water which clears the water for one or two days before it turns cloudy, and they need to "shock" it again.

Shocking the body of water with large amounts of chlorine will break down the molecular chains formed by ozone, but is not recommended. Water will appear clear temporarily, but a few days later the shock is exhausted and the ozone cycle begins again, resulting in cloudy conditions.

To avoid this cycle, the chains formed by the ozone must be allowed to grow large enough to be filtered.

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Steps to Clear Cloudy Water:

- Balance any imbalance in the pH, alkalinity or calcium hardness.
- Remove and clean filter or backwash filter.
- Operate circulation system or pool pump for the minimum recommended time. It may be necessary to increase filtration time.
- Make sure the ozone generator is working properly for the entire filtration cycle.
- Let the water remain cloudy for an extended period to allow the chains to become large enough to be caught in the filter.
- **SPAS:** Put a handful of cellulose fiber (such as Purafiber) into the filter, through the skimmer, to reduce the pore size of the filter media. Wash the filter after overnight operation.
- **POOLS:** If using a sand filter, put a few handfuls of cellulose fiber or alum into the filter, through the skimmer, to reduce the pore size of the filter media. After 24 hours, backwash the filter.

Algae—What You Should Know

Ozone Does **Not** Kill Algae!*

Why Doesn't Ozone Kill Algae?

- Ozone is destroyed immediately when it makes contact with any oxidizable substance in the water. How? Ozone is very reactive - it is oxygen with an extra oxygen atom hanging on. When the ozone hits something (could be a virus, some bacteria or suntan lotion), it releases an oxygen atom (O_1) and creates an oxide of that material. All that is left is a molecule of oxygen (O_2). Because ozone is such a powerful oxidizer and will oxidize matter so quickly, it is gone almost as soon as it is formed.

- Most of the ozone is destroyed upon mixing with the water at point of injection. What's left will be consumed soon thereafter. Very little, if any, ozone makes it into the pool water. Any ozone that does make it into the water has a very slight chance of making it to the wall of the pool or spa where the algae grows.* If it actually makes it to the algae, it is so diluted that it cannot destroy the algae (algae that travels directly through the ozone injector does have a chance of being killed).

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Conclusion

Ozone is not a stand-alone sanitizer. Residual levels of chlorine (0.5-1 ppm), bromine (1-2 ppm), must be used to inhibit algae growth (see page 26-27 for the perfect combination).

*In large doses with a long contact time, ozone can kill algae, but it is very unlikely in a residential application.

Commonly Asked Questions

Why don't we need an air dryer with the Eclipse?

The Eclipse series was designed for residential pools (not commercial pools). Therefore, the concentrations of ozone necessary to produce a healthy bathing environment are relatively small. Air dryers or oxygen concentrators are used to remove the moisture (air dryer) and nitrogen (oxygen concentrator), thus bringing the concentration of ozone up. If we used an air dryer or oxygen concentrator on our Eclipse line, it would be too costly for residential applications, plus it would provide you with more ozone than necessary. Another reason to use an air dryer or oxygen concentrator is to remove the nitrogen and moisture which can combine causing nitric acid to form; nitric acid is typically corrosive to the equipment. However, the Eclipse corona discharge electrodes produce very little nitric acid and are designed to be resistant to nitric acid.

Why does humidity, rain, etc. cause the ozone concentration to drop?

Humidity in the air will slightly inhibit ozone production. Ozone is created when a single oxygen atom (O_1) connects with an oxygen molecule (O_2) to create ozone (O_3). When there is moisture in the air (H_2O), the single oxygen atom is more attracted to it than an oxygen molecule (O_2). As a result, a small amount of H_2O_2 (hydrogen peroxide) is created. In this case, an air dryer or oxygen concentrator would reduce the moisture in the air, therefore creating an environment where more ozone can be created. However, using an air dryer or oxygen concentrator will significantly increase the cost and maintenance of a residential pool ozonator.

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How will ozone affect vinyl liners and/or pool/spa covers?

Vinyl liners and pool/spa covers are very resistant to ozone. Data from ongoing research suggests that there are no known disadvantages to using ozone in a vinyl lined pool. We do not have negative feedback with regard to swimming pool covers, either. Studies found that the UV rays from the sun would break down the pool cover before the ozone would even begin to discolor the cover. Spa covers, however, tend to break down quicker than pool covers. We have been told that spa covers can be discolored by ozone, but over a 'long period of time'. If you have had experience to the contrary on any of the above topics, please contact DEL Ozone with your information: 800-676-1335 ext. 249 or o3info@delozone.com.

Commonly Asked Questions
(continued)

With regard to ozone, how are "grams per hour" and "ppm" related? Which should I look at when comparing ozone systems?

This is an easy question, but creates the most controversy in the ozone market. Although it is easy to compare test results, it is the test results that are not always reliable. DEL uses high-end, calibrated testing equipment to test our products, as well as our competitors' products. When comparing a particular DEL system to a competitor's unit, we make sure to test not only on the same day, but also at the same time of day to ensure that the testing variables are the same.

Assuming you have reliable testing data, you want to consider BOTH grams/hour and PPM, as they are definitely related. The ozone manufacturer should provide you with at least the PPM. From there, you can figure out the grams per hour. The equation is: (PPM / 6,000) x (AIR FLOW in scfh) x (.366) = grams/hour.

Now that you know grams/hour and PPM, how do they relate to residential pools and spas? There are many opinions in the industry on what the acceptable levels are. Pools and spas have many variables, such as: bather load (adults, children, pets, etc); weather (dry, humid, freezing, etc); organic materials that fall into the pool (dust, crop spray, leaves, bugs); indoor or outdoor; cover or no cover; and the list goes on… There are no set guidelines for ozone in our industry. DEL Ozone was one of the earliest ozone manufacturers in the U.S.; therefore, we have experience and testing data to guide us on recommendations for residential pools and spas. Please contact DEL if you need advice on sizing an ozone system for your application.

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Commonly Asked Questions
(continued)

How does ozone work with other sanitizers?

Bromine: ozone works well with bromine. With bromine, you should keep between a 1.0PPM and 2.0PPM. Bromine works better on covered or indoor hot bodies of water, such as a spa. Some people choose to sanitize their pool with bromine. If you have any comments on an ozone/bromine system, please let us know: 800-676-1335 or o3info@delozone.com.

Baquacil/Baqua Spa: ozone works well with these products. Customers with this combination seem to enjoy the quality of water, especially on spas. However, ozone seems to react with these products, causing them to be used up quicker. Therefore, your replacement costs on these products will increase. We do have one known long-time customer who has a 24-hour ozone system on his pool, he occasionally shocks with Baquashock and that's it!

Mineral Systems: We have recommended ozone with mineral systems since 1997 and have received incredible feedback from satisfied customers. See pages 24 & 25 for more details on the use of ozone and mineral systems.

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THE PERFECT COMBINATION

Ozone, Chlorine, and Mineral Systems

What we believe makes for an extra safe, sanitary swimming environment...Ozone, chlorine (which can be reduced to 0.5 ppm), and a mineral system!

Do you really need all three? You can get away with just chlorine, or a combination of chlorine and ozone or a mineral system. However, if you have a "busy" pool (children or young adults, pets, foliage, frequent rain, humidity, high temperatures, etc.), we recommend you take extra care to avoid a problematic pool and to keep your maintenance manageable.

Ozone and chlorine work perfectly together:

Ozone is a constant oxidizer that destroys organics and microorganisms very effectively, but only at the point at which it contacts the water. Even though ozone is a much more powerful oxidizer than chlorine, it does not leave a residual in the body of water like chlorine does. Because of this, the amount of ozone available is limited.

This is why it is crucial to have at least 0.5-1.0 ppm residual of chlorine in the water at all times. The chlorine will destroy any microorganisms and algae that the ozone cannot reach. At the same time, the ozone will destroy any chloramines (the chlorine by-product that causes red eyes and dry skin) that form and you will not notice that chlorine is present in the water.

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THE PERFECT COMBINATION

Ozone, Chlorine, and Mineral Systems (continued)

So why do you need a mineral system?

The mineral system (there are many to choose from-ask your local dealer) will act as a backup algaecide and bactericide. It will insure that the water is always clean in case one of the other systems goes out (i.e. you forget to add chlorine or your ozone system is not operating). The use of the mineral system with ozone will further support the use of minimal levels of residual chlorine.

Why doesn't ozone break down the minerals released from the cartridges?

The formulas of the mineral systems are made in such a way that these particular minerals are stable in the presence of ozone. Additionally, since ozone will first attack particles with the least resistance, it will, at point of injection, attack softer contaminants (such as organic matter like bacteria, bather waste, suntan oil, etc.) instead of minerals. We have recommended these systems to be used with DEL ozone since 1997 and we have not had any negative feedback.

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Using ozone, chlorine, and a mineral system* will make for the safest possible swimming environment that still feels like it is "chemical free". The water will be completely clear and sanitary without turning your hair green and bleaching your swimsuit. Chlorine levels are kept to a minimum (similar to tap water), chloramines are eliminated, and algae growth is inhibited. This is swimming the way it is meant to be!

*Recently, we have been hearing great things about these products: SeaKleer; Natural Chemistry and Pristine Blue. Ask your local pool professional what they have experience with.

THE DEL Website

www.delozone.com

Our website contains valuable information to help you choose the perfect ozone generator. There is a library and Q&A Forum in which you can post a question that a DEL staff member (or anyone else who wants to) will answer. Visit the library for product information, specifications, manuals, articles, an online copy of this book, and even pictures of the most popular electrical spa plugs, and a listing of product replacement lamps, chips, and electrodes.

Finally, the website has a Dealer Locator which allows a retail customer to type in their ZIP code and find a local dealer. We are constantly updating the Dealer Locator and we encourage any new dealers that are not currently in our database to contact us immediately. To access the Dealer Locator, please log on to our website at www.delozone.com – click on the "DEL Ozone" logo and then click on "Dealer Locator". Type in your ZIP code and make sure you are listed.

We hope that you find our website to be helpful and informative. If you have any comments or suggestions, please contact us by phone by calling toll free 1-800-676-1335 or by emailing o3info@delozone.com

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